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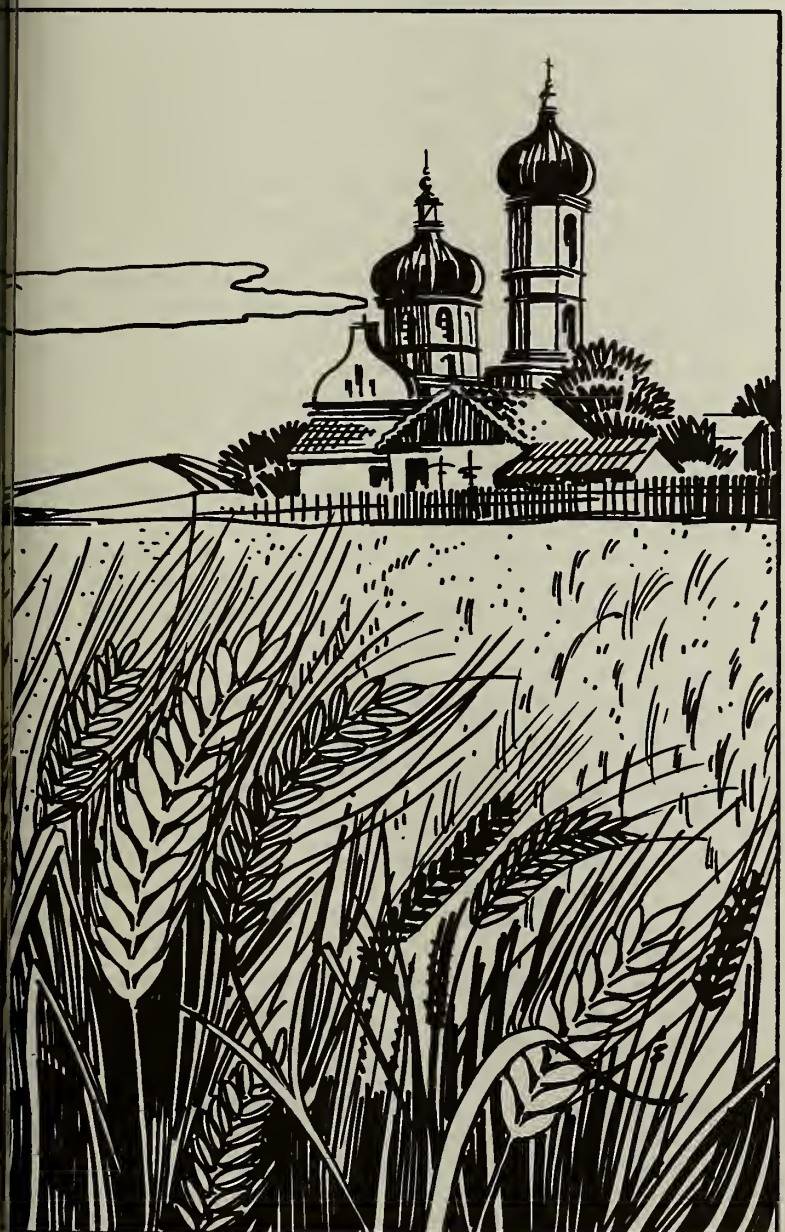
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FOREIGN AGRICULTURE

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Soviet Agriculture: 5 Years in Perspective

Foreign
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Soviet Agriculture: the Past Five Years in Perspective

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In the third year of its current 5-year plan (1966-70) the Soviet Union is moving toward another good agricultural year, with a near-record grain crop, good harvests of most other crops, and record levels of livestock product output. The rapid progress of Soviet agriculture during the past 3 years contrasts sharply with the sluggish growth and crop failure that were characteristic of the first 5 years of this decade.

In the first major Soviet policy statement on agriculture since 1966—a speech made last October 30 by Secretary Leonid I. Brezhnev—it was stressed that any relaxation on the agricultural front would be a mistake and that further rapid increases in agricultural output are needed.

This about-face in agricultural performance has surprised many, as has the recent Soviet competition in certain agricultural export markets. The factors that have produced the dramatic change have been discussed from time to time in numerous articles in this magazine and in other USDA publications over the past 4 years. The adoption of major reforms in agricultural policy by Secretary Brezhnev and Premier Kosygin . . . the increased prices and incentives to agricultural producers . . . and the sharp upward trend in the availability of capital and other important inputs in agriculture—all are familiar.

The critical issues now are: To what extent have the developments of the past few years been the result of new policies rather than simply "flukes" of nature? how steadfastly have the agricultural programs put forth by Brezhnev and Kosygin been carried out? what are the present Soviet agricultural policies? and what is it all likely to mean in the near future?

Trouble period in review

Five years ago the prospects for Soviet agriculture were far from favorable. Crop failure in 1963 had come on the heels of 4 years of stagnation. This along with livestock declines in 1964 produced effects that reverberated far beyond the Soviet Union.

From a traditional net exporter of grain the USSR became a large importer, shipping in during the 4 calendar years 1963-66 over 26 million metric tons of wheat, nearly as much as it had exported in the previous 4 years. On a net basis, grain imports by the USSR were much less spectacular (see first table, page 4), appearing in only 3 years, 1964-66, and never exceeding 4.5 million tons. Even so, it is difficult

to exaggerate the impact of the Soviet purchases on the world grain market and on the thinking of many about Soviet agricultural prospects.

The large Soviet wheat imports coincided with heavy wheat imports by India, Pakistan, and Mainland China. Almost overnight the perennial problem of world wheat surpluses appeared to be transformed into a potential world wheat shortage.

Grains were not the only sector of Soviet agriculture that seemed to be in trouble in this period. In the early sixties virtually all crops and livestock products (see second table, page 4) showed little improvement. Since Soviet population and income were both growing, it was not difficult for many to conclude that the USSR was developing into a growing agricultural market and that its continuing agricultural difficulties would allow, or force, Eastern Europe to turn from the USSR to other countries for agricultural imports.

Rapid recovery

How different is today's situation. In the 3 years 1966-68 Soviet grain production averaged 33 million tons more annually than during 1963-65; of this additional grain an average of over 26 million tons a year were wheat. In the 1966-68 period the Soviet Government purchased from its farms (procured), on the average, almost 20 million tons more of wheat a year than during the previous 3 years; these government supplies determine stock and trade changes. Gross grain exports of the USSR in 1967 were back to the level prevailing before 1964, although net exports were still below the earlier level.

There have also been important developments in other crop sectors. The sluggish performance of industrial crops in the first years of the sixties gave way to sharp increases in cotton production in 1963 and in sugarbeet and oilseeds production in 1964 (see second table, page 4). Production levels for all three crops are now well above those of the earlier period. Rice production has increased dramatically.

These developments have produced major changes in the world markets for vegetable oils, cotton, and sugar. Barely a net exporter of vegetable oils at the beginning of this decade, the USSR in 1967 exported almost 700,000 tons net of oil plus 300,000 tons of oilseeds. Net cotton exports of 100,000 to 200,000 tons during 1960-64 rose to almost 400,000 tons in 1967. Sugar exports climbed from 243,000 tons (gross) in 1960 to over 1 million tons in 1967; however, these figures reflect both increased domestic production and large imports from Cuba.

In the livestock sector there has been a consistent upward movement since 1964. In 1968, according to every indication, the output of most crops in the USSR will be comparable with or above the levels prevailing in the past 3 years, and the output of livestock products will exceed the 1967 levels.

The weather factor

Weather is the single most significant factor in annual changes in agricultural production, especially of grain. The low grain output of the 1963-65 period can be traced to poor weather—exceptionally poor weather in the spring grain regions in 1963 and 1965, and very poor winter grain weather in 1963 and 1964. Similarly, the exceptionally good results of 1966-68 can be traced to good weather.

But this is only part of the story. Geography and climate

make Soviet agriculture especially sensitive to weather, but much can be done to reduce or offset the impact of adverse weather and to gain maximum advantage from good weather. Grain production in the USSR fluctuated 20 million to 45 million tons annually between 1962 and 1968, but in each successive year both the peaks and the troughs were generally higher.

During the postwar period, 1958 was the first really good all-round weather year; a grain crop of 114 million tons was harvested. In 1966, another excellent weather year, the total grain harvest was over 145 million tons on about the same area. In 1967, an unfavorable weather year in many regions, output exceeded that of 1962, a generally good weather year, even though the 1967 area was 16.1 million acres smaller.

Clearly, the fluctuations in grain output from year to year are explained primarily by changes in weather conditions; but changes over a longer time are due chiefly to improvements in agricultural techniques and the economic, technical, and organizational environment in which Soviet agriculture operates.

Cotton production illustrates the impact of these improvements more clearly than grain. Because the crop is entirely irrigated, changes in production over time can be more directly related to changes in area, prices, incentives, inputs, and other nonweather factors. The rapid increase in output since 1963 is related primarily to a much improved level of fertilizer use, higher prices, more machinery, and better incentives. Cotton area has declined since 1963.

Such crops as oilseeds and sugarbeets fall between grain and cotton in vulnerability to weather conditions. They are grown in areas that have less significant annual fluctuations in weather than some of the important grain areas. But they are not as well insulated from the weather as cotton. Annual fluctuations in the output of these crops are explained primarily by the weather or changes in the sown areas, but the upward movement in yields in recent years must be attributed to the same factors that account for the improvements in cotton and grain production. The areas in these crops increased in 1963 and 1964 but have remained fairly constant or declined since.

Looking at grain production in 1968 one might assume that this year was almost as good a weather year as 1966, but it was not. Drought in the southern Ukraine and in some other areas, average weather in the New Lands, and cold wet weather at harvesttime in a number of regions were serious problems. These problems gave rise earlier this year to predictions that the Soviet Union was facing grain and other crop difficulties. Although the exceptionally good weather in certain spring grain regions, including the Urals and Volga, accounts in part for the good harvest results overall, had crop production in the USSR depended solely on the weather this year the results would have been far less favorable.

The conclusion is fairly clear. The measures adopted and put into effect by Brezhnev and Kosygin have improved the ability of USSR agriculture to withstand the adversities of weather and have been a major factor in raising yields and output. The USSR will continue to experience serious fluctuations in output in the future, but the average levels of output recently attained should be seen as sustainable. Output may fall below them at times, but the upward trend will undoubtedly continue.

USSR AGRICULTURAL TRADE, 1960-67

Commodity	1960	1961	1962	1963	1964	1965	1966	1967
	<i>1,000</i>	<i>1,000</i>	<i>1,000</i>	<i>1,000</i>	<i>1,000</i>	<i>1,000</i>	<i>1,000</i>	<i>1,000</i>
	<i>metric</i>	<i>metric</i>	<i>metric</i>	<i>metric</i>	<i>metric</i>	<i>metric</i>	<i>metric</i>	<i>metric</i>
Exports:	<i>tons</i>	<i>tons</i>	<i>tons</i>	<i>tons</i>	<i>tons</i>	<i>tons</i>	<i>tons</i>	<i>tons</i>
Total grain	6,795	7,481	7,814	6,260	3,514	4,330	3,557	6,248
Wheat	5,624	4,801	4,765	4,106	2,030	1,663	2,805	5,284
Flour (grain equivalent)	45	303	303	333	386	321	368	454
Cotton (ginned)	391	383	344	322	394	458	508	534
Sugar (refined)	243	414	792	802	348	604	993	1,032
Oilseeds	110	121	113	101	114	88	147	341
Edible vegetable oils	92	122	152	259	190	242	456	707
Imports:								
Total grain	240	679	46	3,103	7,286	6,375	7,746	2,185
Wheat	98	656	45	3,052	7,281	6,375	7,583	1,828
Flour (grain equivalent)	28	27	27	341	1,176	354	394	255
Rice	501	20	338	194	363	238	275	397
Cotton (ginned)	193	142	150	226	145	183	173	144
Sugar (refined)	1,550	3,242	2,242	1,028	1,680	2,100	1,659	2,234
Oilseeds	418	90	57	65	75	157	49	44
Vegetable oils	59	54	15	37	43	68	47	28

Soviet trade data.

USSR PRODUCTION AND PROCUREMENTS OF SELECTED COMMODITIES, 1960-68

Commodity	1960	1961	1962	1963	1964	1965	1966	1967	1968 ¹
	<i>1,000</i>	<i>1,000</i>	<i>1,000</i>	<i>1,000</i>	<i>1,000</i>	<i>1,000</i>	<i>1,000</i>	<i>1,000</i>	<i>1,000</i>
	<i>metric</i>	<i>metric</i>	<i>metric</i>	<i>metric</i>	<i>metric</i>	<i>metric</i>	<i>metric</i>	<i>metric</i>	<i>metric</i>
Production:	<i>tons</i>	<i>tons</i>	<i>tons</i>	<i>tons</i>	<i>tons</i>	<i>tons</i>	<i>tons</i>	<i>tons</i>	<i>tons</i>
Total grain ²	95,514	109,429	109,635	89,982	121,603	100,363	145,865	124,924	140,000
Wheat	46,274	52,262	54,400	40,000	57,700	46,500	85,000	64,000	75,000
Rice	171	225	243	342	423	513	639	804	900
Oilseeds ²	3,965	4,913	5,097	4,526	6,108	5,584	6,500	6,840	6,600
Sugarbeets	57,728	50,911	47,435	44,052	81,174	72,276	73,800	85,085	—
Cotton	4,289	4,518	4,304	5,210	5,285	5,662	5,980	5,964	—
Meat (carcass weight) ²	7,142	7,119	7,764	8,324	6,814	8,129	8,721	9,392	—
Milk ²	56,163	56,308	57,537	55,123	56,938	65,307	68,393	71,346	—
Wool	357	366	371	373	341	357	371	395	—
Procurement:									
Total grain ³	46,736	52,100	56,649	44,822	68,275	36,300	75,000	57,200	68,300
Wheat ³	30,699	33,320	34,637	22,700	38,700	21,800	55,000	38,000	47,000
Rice ³	65	106	140	216	235	337	—	—	—
Oilseeds ³	2,461	3,276	3,602	3,451	4,254	4,271	5,261	5,427	—
Sugarbeets	52,198	47,742	43,946	41,455	76,124	67,500	69,700	81,380	—
Cotton	4,289	4,518	4,304	5,210	5,285	5,662	5,980	5,964	—
Meat (carcass weight)	4,800	4,500	5,300	5,700	5,000	5,800	6,500	7,200	—
Milk	26,312	27,541	29,215	28,541	31,397	38,700	40,100	42,400	—
Wool ³	358	369	374	380	353	368	380	410	—

¹ Preliminary. ² USDA estimates. ³ Accounting weight; uniform trash and moisture content for grains.
Soviet trade data, except as noted.

USSR AGRICULTURAL-INPUT INDICATORS, PERFORMANCE 1960-67 AND PLANS

Indicator	1960	1961	1962	1963	1964	1965	1966	1967	Plans ¹
	<i>Million</i>	<i>Million</i>	<i>Million</i>	<i>Million</i>	<i>Million</i>	<i>Million</i>	<i>Million</i>	<i>Million</i>	<i>Million</i>
	<i>metric</i>	<i>metric</i>	<i>metric</i>	<i>metric</i>	<i>metric</i>	<i>metric</i>	<i>metric</i>	<i>metric</i>	<i>metric</i>
Fertilizer	<i>tons</i>	<i>tons</i>	<i>tons</i>	<i>tons</i>	<i>tons</i>	<i>tons</i>	<i>tons</i>	<i>tons</i>	<i>tons</i>
(gross weight):									
Production	13.9	15.3	17.2	19.9	25.6	31.2	35.9	40.1	62.0
Deliveries	11.4	12.1	13.6	16.0	22.0	27.1	30.5	33.7	55.0
Machine deliveries:	<i>Thou-</i>	<i>Thou-</i>	<i>Thou-</i>	<i>Thou-</i>	<i>Thou-</i>	<i>Thou-</i>	<i>Thou-</i>	<i>Thou-</i>	<i>Thou-</i>
Tractors	<i>sands</i>	<i>sands</i>	<i>sands</i>	<i>sands</i>	<i>sands</i>	<i>sands</i>	<i>sands</i>	<i>sands</i>	<i>sands</i>
(physical units)	157.0	185.3	206.0	239.3	222.5	239.5	276.0	287.4	356.0
Trucks	66.1	69.7	82.6	68.8	63.0	70.2	105.5	108.1	220.0
Combines	57.0	70.0	79.2	79.6	78.6	79.4	86.4	96.0	110.0
Capital investment:	<i>Billion</i>	<i>Billion</i>	<i>Billion</i>	<i>Billion</i>	<i>Billion</i>	<i>Billion</i>	<i>Billion</i>	<i>Billion</i>	<i>Billion</i>
	<i>rubles ²</i>	<i>rubles ²</i>	<i>rubles ²</i>	<i>rubles ²</i>	<i>rubles ²</i>	<i>rubles ²</i>	<i>rubles ²</i>	<i>rubles ²</i>	<i>rubles ²</i>
Total	6.2	6.9	7.4	8.2	9.7	10.8	11.8	13.1	71.0
State enterprises	3.0	3.7	4.2	4.8	5.8	6.4	6.9	7.4	41.0
Collective farms	3.2	3.2	3.3	3.4	3.9	4.3	4.9	5.6	30.0

¹ 1970 plan for fertilizer and machines; 1966-70 plan total for capital investment. ² 1 ruble=US\$1.11 at the official Soviet rate of exchange.

Execution of agricultural programs

If the programs for agriculture have been instrumental in raising output, it is reasonable to ask how faithfully they have been carried out and whether they will continue.

In a review of the first 3 years of these programs in his October statement, Brezhnev noted that they have not been fully implemented. Fertilizer production and deliveries to agriculture, production and deliveries of agricultural machinery, and capital investment are all behind schedule.

According to Brezhnev, "Not infrequently the planning organs, when encountering difficulties in finding capital investments, try to overcome them by drawing on funds earmarked for agriculture. There are cases, too, when other material and technical resources allocated to agriculture are switched to other objects."

Of the 41 billion rubles planned for state investment in agriculture during 1966-70, 21.2 billion were to have been supplied in the first 3 years, but only 17.7 billion were provided. Similar lags are evident in the deliveries of machinery and fertilizer. Agriculture was supposed to receive 55 million tons of fertilizer by 1970. At the present rate of production and deliveries this goal will not be met. Something closer to 45 million tons will probably be realized. By 1970 agriculture was planned to receive yearly 356,000 tractors, 220,000 trucks, and 110,000 grain combines. Brezhnev complained in his speech that the pace of deliveries was too slow to meet these targets.

However, deliveries of combines have been increasing at a rate appropriate to meet 1970 targets. The increases in tractor deliveries have been jerky, but if they continue at the present rate of increase in tractor production (7 percent per year), the 1970 goal can be met. Truck deliveries will have to more than double if the targets are to be met.

Two significant conclusions can be drawn from these developments. First, major improvements in all these areas have taken place. The shortfalls are noteworthy primarily for the relatively small margin which separates them from the planned rates of increase (except for fertilizer and trucks). Second, Brezhnev's remarks indicate a strong continuing concern for maintaining these programs rather than a giving way to overconfidence, as happened during the 7-Year Plan under Khrushchev with such disastrous consequences.

The tone of Brezhnev's speech was clearly one of underscoring the need for further major efforts directed to boosting agricultural output beyond current levels. He said, "We must implement big new steps in this field and considerably surpass, within the shortest possible time, the present level of agricultural production in the country."

Future agricultural policies

The burden of Brezhnev's remarks is that the recent policies which have proved successful must be pushed further. Lagging fertilizer production is to be stimulated. During 1969-72, fertilizer capacity is to be increased from 47 million to 95 million tons. In 1969, capacity is to increase 13 million tons and in 1970, 12.5 million tons.

The present relatively high prices for agricultural products will be retained, and the present program of fixed procurement levels will be continued into the next 5-year-plan period. The 50-percent bonus for above-plan sales of grain to the government will be retained. Brezhnev said that proposals to extend these bonuses to other crops should be considered.

These and other financial measures have been instrumental in raising collective farmers' income from socialized labor 30 percent during 1966-68.

Brezhnev also called for continued and improved work in the area of irrigation, reclamation, improving seed quality and types, and a variety of other cultural practices—such as wider use of fallow, better dry-grain-farming techniques, and the use of grasses. The improvements in these practices since 1964 have been important in producing higher crop yields and increasing output on smaller cultivated areas.

Brezhnev also brought up a number of the more difficult and complicated problems involved in efficient utilization of resources by agriculture. He proposed a better system of incentives for machinery operators to encourage better use of machinery, a more efficient method of machinery and fertilizer distribution, and a working toward a system of direct on farm procurement of agricultural products. These proposals if put into effect, could reduce the burden on state and collective farms now associated with the acquisition of farm inputs and the sale of farm products.

Implications for the near future

The immediate question is the disposal of this year's harvest. The large government wheat purchases from farms during 1966-68 amount to 60 million tons more wheat than was purchased by the state during 1963-65. If the USSR could resume large grain exports in 1967 it could certainly export larger quantities in 1969 if that were desirable. Its stock position should now be quite comfortable. According to Brezhnev, the 1968 harvest enabled the USSR "to have a normal balance of foodstuffs." This was the first such statement in many years.

Although not yet announced, the anticipated output of cotton, oilseeds, and sugarbeets in 1968 indicates that little relief from the recent strong pressure in export markets for these commodities is in sight. Exports of vegetable oils may not be as high as the exceptional 1967 and 1968 levels, but they can be expected to remain large. Brezhnev announced that cotton and sunflowerseed production should be raised to 7 million tons each in the near future—an increase of roughly 1 million tons over the current level for each crop.

Brezhnev also called for grain production in the range of 190 million to 200 million tons bunker weight (about 165 million to 175 million tons barn yield). Although such a grain crop is not likely in the next year or so, it could materialize with another favorable weather year such as 1966. Rice production is to continue to expand.

Looking beyond this year's harvest, there is little to suggest that Soviet agriculture will suffer a prolonged serious interruption in growth—unless the programs carried out by Brezhnev and reemphasized in his recent speech are reversed. Much room for improvement remains, and many problems are unresolved.

Output will certainly continue to fluctuate from year to year, but it would be prudent to assume that the trend will continue upward. It should also be remembered that much of this improvement will be internalized in the form of a better Soviet diet—a diet that is still far from satisfactory by the government's own yardstick.

But the past 3 years indicate that the Soviet Union can and will use its supplies of agricultural products in world markets where it is to that country's advantage. This competition is a factor that must be recognized.

United Kingdom: A Miscellany of News

The following items of special agricultural information are based on dispatches from the U.S. Agricultural Attaché in London, David L. Hume.

Foot-and-Mouth Disease Safeguards

Four governments in South America (Argentina, Brazil, Chile, and Uruguay) have agreed with the United Kingdom to institute new measures to help prevent the introduction of foot-and-mouth virus into Britain through meat imports.

First, the South American governments will insure that stock owners are legally obligated to report any occurrence of the disease in their herds. Second, any movement of stock from infected herds will be prohibited for at least 60 days or until 30 days after the last detection of an infected animal if the disease is found more than once on the same premises. Third, meat exported to the United Kingdom will come only from animals vaccinated against foot-and-mouth disease with the inactive type of vaccine of a standard controlled by the country's veterinary service.

Another part of the agreement that applies to Argentina and Uruguay specifies that the British Government will give the Argentine and Uruguayan Governments details of British investigations of occurrences of foot-and-mouth disease in the United Kingdom. Uruguay and Argentina will be given opportunity to comment on any findings that implicate meat from their countries as sources of infection.

The new arrangements should considerably reduce the risk of infecting British livestock with foot-and-mouth disease through meat imports. In the meantime, trade in carcass beef from Argentina to Britain is almost nonexistent. Imports are mostly prepacked cuts, and these are being shipped in rather limited quantities.

Controversial Calf Sales to Continent

Exports of young calves from the United Kingdom to France and Belgium have jumped sharply in the past few months. The trade is chiefly in very young Friesian bull calves (a few weeks old) of 110 pounds or a little more. Most of the calves will be raised for "white veal," which requires special feeding and conditions; other animals will be raised and then fattened on barley.

The recent export boom is due to two factors. First, in July 1967 the British Government reduced the weight requirements for exported calves from 200 to 110 pounds. The new rules allow calves suitable for rearing for white veal to be sold abroad. Second, meat prices are higher on the Continent than in the United Kingdom, and a French or Belgian farmer will pay more for a calf than can a British farmer who wants a reasonable profit. Calf exports started soon after the new weight regulations but were interrupted by the epidemic of foot-and-mouth disease in Britain; exports resumed this summer and fall.

In Britain, the price of a young Friesian bull calf has jumped from about US\$33.60 to \$50.40. Many U.K. dairy farmers are more than pleased since high calf prices provide them extra income at a time when milk profits have been falling. Beef producers, however, are most unhappy because

the price of calves is being forced above a level they can afford. The government is disturbed because the heavy sale of calves abroad is hindering the encouragement of U.K. beef production from steers from the expanding dairy herd.

The official government policy is aimed at trying to stem increased milk production and expanding dairy herds and at the same time solving the need for more home-grown beef. At the moment it looks as if the government is getting the worst on both fronts. Dairy herds will continue to increase as long as some combination of milk and calf selling is profitable; and beef production within Britain will go down if U.K. dairy farmers continue to sell their calves for high prices on the Continent.

Instant Mashed Potatoes Runaway Success

British housewives are purchasing packets of instant mashed potato flakes and granules at a record rate this year, and the market is expected to continue to expand. Sales have jumped from the value of \$700,000 in 1964 to an estimated \$13.2 million this year.

For many years after World War II British food manufacturers and processors were reluctant to try mashed potato powders, flakes, or granules on the general public, who had memories of a wartime mashed potato powder that was nutritious but definitely untasty. It left many Britishers with a reluctance to try any convenience form of potatoes.

First, food processors tried dehydrated forms of potatoes, which were much improved in the 1950's, on industrial and institutional markets. In the 1960's manufacturers, after success in other fields, decided to try the retail market. Because of the merits of the products and heavy advertising and promotional campaigns, sales zoomed.

Some companies are building new plants to process potatoes into convenience form, and others are expanding their facilities. It is estimated that by 1971 about 150,000 tons of U.K. potatoes a year will be processed, or about twice the present amount. Other companies, however, rely on imported potato flour, flakes, and granules and do only final processing and packaging.

The value of imports has risen sharply, as has the quantity. In 1966 about \$1.3 million worth of dehydrated potatoes were brought into the United Kingdom; in the first 8 months of 1968 over \$5.7 million worth were imported.

The United States supplies a large chunk of the United Kingdom's dehydrated potato purchases. In the first 9 months of 1968, U.S. exports to the United Kingdom of dehydrated potatoes in all forms were about 3,500 metric tons.

Cheese Imports Still a Problem

Dairymen in the United Kingdom are complaining about the volume of cheese imports and their effect on the native dairy industry. The Milk Marketing Board and the National Farmers' Union advocate antidumping measures by the government; but the government prefers to try to persuade those countries that are sending large cheese shipments to the United Kingdom to voluntarily cut down their offerings. (See

Foreign Agriculture, July 22, 1968, for a report of the size of the import increases.)

In August the government appealed to foreign shippers to hold back Cheddar-type cheese entering the country to a total of 123,000 tons for the year ending March 1969. On November 6 this plan for voluntary restraint of cheese shipments from overseas suppliers was extended up to March 1970, according to an announcement by the U.K. Minister of Agriculture Cledwyn Hughes.

So far no one has agreed to an unconditional limitation, though New Zealand and the Netherlands have agreed in principle to a cut if other suppliers also conform.

Cheese sales have been much accelerated this year by Australia, Denmark, and France; the Netherlands shipments have been above average. Prices of foreign cheeses have been slipping, with the chief sufferer New Zealand.

In the meantime, the production of domestic farmhouse Cheddar cheese has been put on a fixed production basis. U.K. cheesemakers get the full wholesale price for the milk they are not allowed to make into cheese, but of course they cannot get the profit from the cheese they are not permitted to make.

Another aggravation of the situation is that production of liquid milk is going up at the same time that liquid consumption is going down. Ordinarily in Britain surplus milk is diverted to cheese manufacture. Making butter (already in vast oversupply in Europe) is a last resort.

The simple extension in November of the temporary plan for voluntary limitation on cheese exports appears to be satisfying to very few of the interested parties in the United Kingdom. The National Farmers' Union and the Milk Marketing Board have expressed disappointment that no stronger action has been taken. They have pointed out that, so far, the voluntary system does not appear to be working at all well.

The Ministry appears to believe that it is too early to judge whether the voluntary system is or will be successful since shipments coming in during recent weeks had probably been arranged on forward contracts before the appeal was made in August for limitation.

Supermarkets Feature Table Grapes

The increasing appetite of the British public for table grapes has led to larger imports and sales this year than ever before. In recent years the usual annual growth of imports has been about 6 percent. Last year the trend was disrupted by a drop in Spanish deliveries because of drought. But this year grape imports have jumped 11½ percent if the first 8 months of 1968 are compared with the same period in 1967.

About 5 years ago supermarkets began buying occasional lots of grapes when prices were favorable. Their customers responded enthusiastically. This year supermarkets have been steady buyers—especially of Spanish grapes, which are unusually plentiful and of excellent quality. Spanish grapes are also unusually cheap because of the large quantity.

In late fall grapes were selling in U.K. supermarkets for between US\$0.15 and \$0.18 per pound. They were going to wholesalers for about \$0.12 per pound. Spanish producers are not pleased with the situation because of the low profits they are making. Normally, Spanish growers could count on a high-priced market after Christmas when Spanish grapes are the only ones available before arrivals from South Africa.

But South Africa is shipping earlier each year and in larger quantities in an effort to cut into this lucrative seasonal trade.

U.S. fresh grape exports to the United Kingdom dropped to 304 short tons in 1967-68 from 4,893 tons in 1966-67, 2,771 tons in 1965-66. Reason for the drop was rain in California just before the 1967-68 crop was harvested—a circumstance that resulted in a crop that would not ship well, although it could be stored. This year, with new container ships available, it is hoped that a U.S. market can be developed for California Emperor grapes in the late fall and early winter.

New Developments in Corn Production

Experimentation with various forms of corn in Britain seems to be having encouraging results for the country's farmers. Corn is being raised in some areas as a "break crop"—a planting that is resistant to and stops the spread of cereal diseases, which become troublesome when one type of cereal crop is intensively farmed on a piece of land over a long period. Such corn may be intended for harvest either as grain or as silage. Of the 10,000 acres estimated to be in corn in 1968, about 70 percent were harvested for silage.

The upswing in corn planting is the result of the development of a new early maturing hybrid variety, Kelvedon 59. An even earlier maturing hybrid is being perfected. But even with these advances, most corn grown in Britain will probably be cut for silage.

A small but rapidly increasing and highly profitable acreage is devoted to sweetcorn. Despite competition from canned and frozen corn-on-the-cob imports, fresh sweetcorn is selling excellently. More farmers may become sweetcorn producers next year.

Citrus Sources Reflect Devaluation

The pattern of supply to the United Kingdom of fresh citrus fruit, single-strength juice, and canned citrus segments shows a definite change during the past year. In general, Israel leaped ahead in the British market—partly because it devalued its currency when the British devalued theirs. U.S. exports to Britain (now relatively high priced) fell sharply in every category of fresh and processed citrus except concentrated orange juice, where they held even.

In the first 7 months of 1968 Israel's shipments of fresh sweet oranges were 10 percent larger than a year earlier, South Africa's 18 percent greater, and U.S. sales only 2 percent of the previous year's.

For fresh grapefruit, Israel's exports to the United Kingdom were up almost 40 percent. South Africa's shipments increased 13 percent. Sales of U.S. grapefruit fell to only 104 tons, or 10 percent of those for the same period the previous year.

Fresh lemon sales by Israel were up 44 percent. Exports from the United States and South Africa decreased 50 and 46 percent, respectively.

Sales of canned orange segments were still led by the Japanese, but their exports were down by 30 percent. Israel headed sales of canned grapefruit segments and gained 16 percent in comparison to the period a year earlier.

Climb in Farm-Support Expenses Causes Concern in EEC

Both policymakers and taxpayers in the European Economic Community have been looking with growing anxiety at the spiraling cost of supporting farm prices at levels far above those generally paid to efficient producers in other countries. Anticipated expenditures for 1968-69 give them cause for further concern as they watch the budget for the common agricultural policy (CAP) rise to almost \$2.5 billion (see table). Despite this high cost, farm income problems are not being resolved, and surpluses are piling up.

The CAP is financed through the European Guidance and Guarantee Fund. Farm price support operations and subsidies for the exportation of products to third countries are now almost entirely underwritten by the Guarantee Section. The Guidance Section, for which expenditure of a maximum of \$285 million is permitted, finances measures to improve the economic structure of agriculture. Interim aid to ease the transition to a common market organization is extended for some products from special appropriations from the Fund. (For details on the Fund, see "EEC Agricultural Fund Runs Into Trouble," *Foreign Agriculture*, June 17, 1968.)

The 1968-69 budget shown in the table could change, depending on production, price trends, and other variables: but generally high farm output in 1968 is likely to result in expenditures at least equal to those proposed. The planned increase over the 1967-68 budget totals more than three-fourths of a billion dollars. For 1969-70 a budget in excess of \$3 billion seems likely, and some unofficial estimates for 1980—based on no reversal of current policies—run as high as \$10 billion.

Reasons for the climb

The major reasons for the large increases in Fund expenditures over the years have been:

- The increasing number of products under the CAP;
- increases in the share of market intervention expenses supported by the Fund (from one-sixth in 1962-63 to nearly 100 percent in 1967-68);
- increased production of CAP-covered commodities, with

growing surpluses of dairy products, sugar, soft wheat, barley, alfalfa, hops, pork, broilers, and certain fruits and vegetables:

- higher support prices and higher export subsidies because of the widening gap between EEC and world market prices.

Some new developments will also affect Fund costs. These include the increase in the premium to encourage use of wheat for feed, initiation of a subsidy to encourage use of dried milk in feed, schemes to divert butter and sugar into feed and other secondary uses, and increased food aid.

Payments from the Guarantee Section are expected to be divided about equally between domestic price support activities and export subsidies in 1968-69, although this division becomes unequal for some commodities. For grain export subsidies are budgeted at \$454 million and price support operations at \$212 million. For dairy products expenditures are expected to be divided down the middle, while for sugar export subsidies exceed domestic price support costs by almost \$40 million. The growing cost of export subsidies reflects an attempt to "export" the problems of expanding surpluses. All but \$8 million of expenditures for vegetable fats and oils will be for domestic market support since the EEC is not self-sufficient in vegetable oils.

National governments eye spending

The escalating Fund expenditures are receiving close scrutiny from national Finance Ministers, since about half the contributions to the Fund come from national treasuries and half from transfers of variable levies collected by member governments and from farm-policy experts. Finance Ministers have called for a more direct role in any Community farm-policy planning that involves substantial increases in spending. Recently, Agriculture Ministers of the six countries decided to set ceilings for spending on some commodities such as butter. When a ceiling is reached, the Ministers will meet to determine what additional action is necessary.

Nevertheless, much opportunity remains for spending to continue to increase as long as farm prices do not reflect world prices. Perhaps the current reappraisal of the CAP will lead to a more reasonable policy. —ROBERT E. SHEPHERD

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Economic Research Service*

EEC FARM FUND EXPENDITURES

Item	1962-63	1967-68 ¹	1968-69 ²
	1,000	1,000	1,000
	dollars	dollars	dollars
Guarantee Section:			
Grain	27,958	535,000	666,000
Milk and products	—	370,000	624,000
Fats and oils	—	193,000	238,200
Fruits and vegetables	—	29,060	47,000
Rice	—	7,138	18,200
Sugar	—	106,600	302,000
Pork	50	40,000	42,200
Beef and veal	—	2,000	22,000
Eggs	551	2,000	1,800
Poultry meat	163	5,000	5,700
Other products	—	20,000	22,200
Total	28,722	1,309,798	1,989,300
Guidance Section	9,050	153,000	285,000
Special	—	208,250	140,000
Grand total	37,772	1,671,048	2,414,300

¹ Estimated, ² Proposed.

Note: First measures of Common Market organization initiated in 1962 for cereals, pork, eggs, poultry, fresh fruits and vegetables; 1964 for rice, milk, beef and veal; 1966 for olive oil; 1967 for sugar, oilseeds, processed fruits and vegetables.

Canada's 1968 Honey Crop

According to preliminary estimates, the 1968 honey harvest in Canada is approximately 10 million pounds lower than the 45.7 million pounds harvested in 1967. Instrumental in this reduction is a short crop in Alberta caused by a killing frost last spring in the Peace River area.

Despite the lower estimated 1968 production, Canadian honey supplies appear to be large. Exports through July of this year were 3.3 million pounds compared with 1.6 million during the same period of 1967. Nevertheless, Canada entered the harvest period with carryover stocks of 16 million pounds as of July 1, 1968. These stocks consist of darker grades than usual.

Canada has been a strong competitor this year in foreign markets. The United States imported 1.7 million pounds from Canada during the first 9 months of 1968, while only 37,500 pounds entered from Canada during the same period of 1967.

U. S. Cotton in the Export Market

Small supplies at home, coupled with stiff competition abroad, have put a damper on U.S. cotton exports, and this season will see another decline in cotton sales abroad. The drop—projected at 21 percent—is the second in a row for the United States and will give this country only about a fifth of the world cotton market.

The tightened U.S. supply is in sharp contrast to the huge cotton surpluses of yesteryear. It is the result of poor weather in 1966 and 1967, plus heavy farmer participation in the acreage diversion program provided for by the Food and Agriculture Act of 1965. This has been further aggravated by a 1968 crop that is below estimated domestic and foreign needs.

The stiff competition abroad comes from two sources. Other exporting countries have expanded production in response to high world prices, and manmade fibers have continued to displace import markets for cotton.

Improvement in both these areas, however, appears to be in store. Diversion incentives will be withheld in 1969, thus laying the groundwork for a larger crop and expanded U.S. exports. Also, market development continues to open outlets, and cotton research promises more easy-care finishes that hopefully will bolster cotton's position vis-a-vis manmade fibers.

U.S. and its competitors

Current forecasts place U.S. cotton exports this season at around 3.3 million bales—off sharply from the 4.2 million shipped out in 1967-68 and the 4.7 million sold in 1966-67. A part of this total will be exported under Public Law 480 which between its 1954 beginning and 1967-68 has moved 11.8 million bales of cotton to developing countries. In recent years, exports under P.L. 480, including barter, have been around 1 million bales per annum.

Most Free World nations have larger crops—and thus more cotton to export—this year. In fact, excluding the United States, this area as a whole has nearly 12 million bales of cotton that it will probably export, or 1.2 million bales above exports a year earlier. Countries with the largest increases over last year include Mexico, Brazil, Colombia, and Iran.

In the Communist world, the opposite situation prevails. The Soviet Union—which exports from 2.0 million to 2.5 million bales annually—may have to reduce shipments since its crop is up only slightly and domestic requirements will probably continue to rise. A drop in its sales would ease competition in the West, where the USSR has found many of its buyers in recent years. Until 1965, Soviet export sales were all to Eastern Europe except for about 250,000 bales annually to Western Europe. Since then the USSR has expanded sales to Western countries, and in 1967-68 total exports to non-Communist countries will probably reach 1.0 million bales. Japan and Canada are now the largest buyers.

The cotton importers

Communist importing countries may be more active in Free World markets this season. Mainland China, which in 1967-68 harvested an excellent crop and reduced imports to

around 300,000 bales from 500,000 or more in other recent years, will probably increase imports in 1968-69. That country's crop is off this year. Imports by Eastern European countries from the Free World could also be higher in the current season.

Net cotton imports by the Communist countries have a tremendous influence on U.S. trade even though very little U.S. cotton moves to these countries. This trade can vary sharply from one year to another, depending on the size of crops in the two large producers—Mainland China and the USSR.

Free World importing countries will be buying less cotton this year—an estimated 13.2 million bales, compared with 13.5 million in 1967-68. This does not mean that they will be consuming less; there actually will be a rise in consumption—although not at as fast a rate as total textile activity—to about 19.3 million bales from 18.7 million in 1967-68. Instead, it is the stock position that will keep imports down. As of August 1, 1968, these stocks were estimated at 6.8 million bales—the largest raw cotton carryover by non-Communist importing countries in many years and more than a million bales above that on August 1, 1966, when the present buildup began. Stocks in Japan and India are especially large—the former because of heavy purchases during the past 2 seasons, the latter because of a large 1967-68 crop.

How the U.S. decline developed

For several years prior to 1965, the United States had been facing increasingly intense competition in foreign markets from other growths as well as from manmade fibers. Cotton production expanded faster than consumption—in part because world prices for cotton were sustained at levels that repressed industry use and encouraged cotton production. Stocks accumulated—and mostly in the United States. This problem culminated on August 1, 1966, in a record world carryover of 27.0 million bales and record U.S. stocks of 16.9 million.

In 1965, the U.S. Congress decided to make a massive effort to restore a reasonable balance to cotton supply and demand, even though this country would make the major sacrifice in correcting a situation that practically all producing nations helped create. New legislation was enacted under which U.S. farmers were induced by generous payments to drastically curtail acreage. This was meant to reduce stocks to a more reasonable level during a 4-year period, provided that other countries avoided increases in production.

During the 1966 season, production fell about 4.5 million bales below disappearance, but supplies were adequate to meet all market requirements. In 1967, the crop was down sharply from the expected level because of unfavorable weather, and stocks were reduced by around 6.0 million bales. The 6.5-million-bale carryover on August 1, 1968, was the lowest since the early 1950's. In 1968, it was necessary to increase U.S. production to approximately the amount expected to be consumed and exported. Acreage was expanded in the current season, but production will not equal disappearance, and a further stock decline will take place.

Shifts in the quality composition of available cotton have also been important from a competitive standpoint. The excess stocks that had accumulated contained a disproportionate share of the shorter staple lengths, and prices reacted with wide discounts for the short cottons. At the same time, there was a tightening of U.S. longer staple supplies, which coincided with smaller crops of these qualities in Mexico and other countries. Consequently, prices for the longer staples, which had been steady during the 1966-67 season, began climbing sharply early in 1967-68, with the greatest rise in the United States. By November 1967, prices of the U.S. cotton were well above those for comparable foreign growths. This noncompetitive situation continued to exist into early November, although the gap between U.S. and foreign prices had narrowed somewhat.

The disparity in prices for longer staple cottons cut deeply into U.S. exports of those qualities in 1967-68. This is reflected in the fact that nearly half of total U.S. exports that year was of cotton under 1 inch in staple length, compared with 35 percent in the previous season.

The low level of U.S. supplies and higher cotton prices have worked both to expand production outside the United States and, along with other factors, to slow the rate of increase in foreign cotton consumption. For example, in 1967-68 foreign production rose 1.5 million bales while consumption rose only 0.7 million. This season production will increase about 1.0 million bales while consumption will grow at a much slower rate and be well below the long-term average. In part, this reflects the continued high price relationship of cotton to manmade fibers, which encourages intensified competition from manmade fibers, both at home and abroad.

Market development aiding cotton

Clearly, these conditions pose short-run problems for U.S. cotton. But there is every reason to believe that, beginning in 1969 and continuing over the longer run, the U.S. producer can and will produce an adequate supply of cotton at competitive prices. And, of course, he is aided by the continuing market development and research programs being carried out to improve cotton's position in the world fiber market.

The United States is, for instance, now participating with several other cotton-exporting nations in the International Institute for Cotton (IIC), established early in 1966 to stimulate demand for cotton, initially in Western Europe and Japan. Active members of IIC—Greece, India, Mexico, Spain, Tanzania, Uganda, and the United States—account for almost half of the world's cotton production and exports. Other countries are expected to become members soon.

Among the activities of IIC are technical research programs in cooperation with five leading European textile institutes and three universities. These are directed primarily toward improving qualities of cotton for outerwear, which has suffered most from competition with manmade fibers. Focus now is on making cotton articles stronger and more wrinkle-resistant and easy to care for—developments that would certainly help enhance cotton sales abroad.

The other area of IIC activity—promotion through mass media, window displays, labeling, and fashion shows—is helping to sell consumers on cotton. In Sweden, for instance, ICC participated in a joint campaign with Melka—one of the leading European shirt manufacturers. IIC ran a series of ads featuring the Melka shirt of 100-percent cotton with a

new permanent press finish. Melka for its part, did the same in a group of magazines and newspapers. The effect on the Swedish market was felt immediately. Sales of 100-percent cotton shirts rose from 15 percent to 35 percent of the market in 6 months, and based on orders for future delivery, the trade predicted that cotton would gain three-fourths of the shirt market by 1970. (For more information on IIC research and promotion work see *Foreign Agriculture*, August 5 and August 26, 1968.)

At the same time, Cotton Council International (CCI)—FAS cooperator in market development abroad—is concentrating on promoting U.S. cotton specifically. CCI continues to operate a market development program in Canada, a small-scale market research project in India, the Maid of Cotton program, and certain other activities in Europe and Asia that do not duplicate IIC activities. For example, CCI recently stationed a cotton trade specialist in Brussels to service the trade and industry in Europe on marketing and technical matters pertaining to U.S. cotton. A similar service is planned for the Far East in the near future.

CCI also sponsors U.S. cotton orientation programs for foreign cotton spinners from various countries in Europe and the Far East.

Canada Studies Corn Problems

Canada's Special Committee on Farm Income has been commissioned to study Ontario's corn industry. Said Minister of Agriculture and Food William A. Stewart in announcing the study, "Although we have been pleased with the development of this industry in Ontario . . . We feel that this crop has even greater possibilities in many areas of this Province, providing we can resolve some of the problems that beset the industry."

The study will begin soon and include public hearings in corn growing areas to which persons and organizations involved in every aspect of corn production will be invited. The corn study report will be presented separately from the Committee's main report which is expected shortly, but well in time to be considered prior to 1969 planting dates.

Analysis of costs of agricultural inputs, availability of research information to producers, extent of storage facilities, price bases, possible expansion of end uses of corn and by-products, possibility of developing uniform grades for corn, and the structure of present and future organizations representing the corn industry will be undertaken.

Sagging corn prices this fall revived interest in a corn marketing board in Ontario. In 1967 a gathering of supporters of the Ontario Federation of Agriculture and the Ontario Farmers Union called for the formation of a corn board, but partly because of lack of coordination between the two organizations no board materialized. Current federal endorsement of such a board, however, should move the proposal through discussion and into concrete planning quickly.

(The gravity of Canada's corn marketing problem this year led to the establishment of authorization to impose an additional entry fee on U.S. corn imports whenever prices dropped below \$1.05 per bushel, f.o.b. Because this action impaired the value of Canadian concessions to the United States, the Canadian Government agreed to advance implementation of tariff concessions, negotiated during the Kennedy Round, on certain other agricultural products.)

*With its arresting flavor and unusual versatility,
the oldest oilseed known to man still finds an abundance
of uses—both edible and inedible—throughout the world.*

Sesame: Ancient Oilseed Still Serving Man

Few living things have survived the passage of time so well as the sesame seed. Even before the Christian era, men were cultivating sesame for food, for medicinal oil, and for use in religious ceremonies. Today, it remains a faithful servant, finding its way into numerous products from cooking oil to candy and from animal feed to paint and perfume.

In terms of worldwide oilseed production and trade, sesame is outranked considerably by soybeans, cottonseed, peanuts, sunflowerseed, and rapeseed. But to the countries—mostly developing ones—that produce sesame in sizable quantity, it is both economically and nutritionally valuable. And to those—like the United States—that can produce other oilseed crops more efficiently, it is nevertheless prized for the zestful flavor it adds to baked goods, confections, salads, meats, and other foods.

Many varieties identified

This versatile seed derives from an erect annual plant of many varieties and types, usually ranging in height from 3 to 4½ feet although some varieties reach 7 feet or more. The leaves vary in shape, depending on the variety. As early as 6 weeks after sowing, the plants produce from one to three white or pale rose flowers in the leaf axils. The prized parts of the plant—the grayish-white to yellow, brown, and black seeds of sweet, nutty flavor—are contained in small capsules that shatter easily when dry. It has been said that this tendency of the capsules to open easily probably inspired the writer of the *Arabian Nights* tale “Ali Baba and the Forty Thieves” to use the password “open sesame” for gaining entry to the cave where the robbers hid their treasure.

Botanists dispute the origin of the sesame plant, some tracing it to Africa, which has numerous wild species, and others to India, where it is mentioned in early Sanskrit medical writings. Some people believe sesame may have been the first oilseed from which oil was extracted by the Hindus. In ancient India, in addition to being used for medicinal and culinary purposes, it was central to certain Hindu religious ceremonies and was called *homadhanya* or sacrificial grain.

Many of the countries producing sesame seed today are in areas that have cultivated it historically. India—the major producer—last year harvested about one-fourth of the world's total sesame crop of 1.74 million short tons. About another fifth came from Africa, where the Sudan, Nigeria, Ethiopia, the United Arab Republic, and Tanzania are the major producers of sesame.

Spreads across the globe

From its origins in India and Africa sesame spread to most tropical and subtropical areas of the world and even into some temperate regions. Mainland China now ranks as the world's second largest producer, with a crop of 355,000 tons in 1967. In Latin America sesame cultivation extends chiefly between Mexico and the northern part of South America, with Mexico, Venezuela, and Colombia together

harvesting 287,000 tons last year. Turkey, Burma, Pakistan, and Thailand complete the global picture of the chief producers.

From this brief sketch it is evident that most of the world's sesame is grown in developing countries with abundant labor supplies. This is primarily because the easily shattered seed capsules require careful handling during harvest. The crop is harvested when the capsules nearest the ground are mature; these always ripen first, and if farmers waited for the rest of the capsules to mature, the seed from the lower ones would be lost. After harvest, the plants are allowed to dry for about a week; then they are threshed and the seeds gathered up.

Continued research has produced a number of nonshattering varieties of sesame. However, these have not been generally accepted because of low yields, poor germination, inferior seed quality, and small pods. Until obstacles like these are eliminated, sesame is likely to remain among the minor oilseed crops.

The largest proportion of the world's sesame seed crop is crushed for oil, for these little seeds are veritable gold mines of edible oil—usually from 44 to 54 percent. Sesame oil is used as a cooking and salad oil, in shortening and margarine, in soap and paint, as a fixative for perfume, as a carrier for fat-soluble pharmaceuticals, and in cosmetics and insecticides. The value of the oil—in terms of price one of the highest among all oils—is such that nearly all of it is used for edible purposes. Part of this value lies in its resistance to oxidation and thus rancidity.

The meal left over after the seed has been crushed is a rich source of protein—averaging 42 percent—phosphorus, calcium, and the vitamin niacin. This confirms sesame's nutritional value to the countries that produce it. Compressed into cakes, the meal makes an excellent animal feed in combination with other oilseed cakes. In parts of South America it is mixed with cornmeal for baking bread.

The seeds themselves—whole or crushed—are used in a wide variety of foods. In India they are made into sweetmeats and are roasted, ground into meal, and made into cakes. Middle Easterners crush them into a paste to spread on bread. Turks make them into their world-famous *halvah* candy. Africans use them in porridge and soup, as well as in confections. In the United States they are popular in southern cooking and used largely by the baking industry, especially as a garnish for rolls and French bread.

World trade rather small

World sesame trade is relatively small as most of the crop is consumed in producing countries. The trade is mainly in the form of seed, with exports of oil ranging from only 2,000 to 3,000 tons annually. Last year, total world exports of sesame seed amounted to about 189,900 short tons. By far the leading exporter is the Sudan, with an average of about 82,000 short tons annually so far in the current decade.

(Continued on page 12)

Greece Sets Out To Solve Its Basic Farm Problems

The Greek Government has begun to implement the agricultural proposals set forth in its 5-year economic development plan (1968-72). As announced early this year, the plan noted the problems impeding further agricultural progress and proposed to tackle some of them in order to modernize farming, raise production, and better integrate agriculture and the rest of the economy. Solution of the major farm problems is also intended to help lay the groundwork for harmonization of Greek policy with that of the Common Market, of which Greece is an associate member.

The problems

Greece's farm problems radiate essentially from the small size of its farms—averaging 8.5 acres—and the numerous holdings into which ownership is divided—averaging seven. Some 85 percent of the farms are 12.5 acres or less, a result of old traditions and institutions like the dowry system. Consequently, the cost of production is high; productivity is low, and the chances of increasing it are limited. The high production cost has led to establishment of costly farm subsidies.

The small holdings have also restricted progress in modernization. Farm cooperatives are still operating under a 1924 law, and until recently agricultural products were marketed along lines established many years ago. Application of machinery, fertilizer, and similar scientific and technical developments has been limited. The same is true of irrigation despite the need dictated by the country's long dry season and uneven rainfall distribution. Only about 1.5 million acres or 16 percent of the arable land is irrigated. The lack of more irrigation facilities hinders further development of high-income crops.

The plans

Provisions for solving Greece's basic farm problem of small holdings go beyond the 5-year plan, having been incorporated into the new Constitution approved recently by referendum. The Constitution places in the hands of the government the authority to legislate programs to consolidate holdings and increase the size of farm units.

Other programs and proposals for revamping and updating agriculture include a change in the wheat-marketing system, new farm-support measures, livestock improvement projects, a program to upgrade the quality of milk, regional-development projects, and encouragement of private investment in agricultural industries.

The new wheat-marketing system was actually put into effect in the late summer of 1967. Before that time, the government collected large quantities of wheat through its high price-support system; flour millers were thus obliged to buy from the government, taking only a small amount directly from farmers. Under the new program millers are assisted financially in procuring their requirements directly from the farmers and are free to buy the quantity and type they desire. The government also establishes minimum prices in case farmers are unable to sell their wheat commercially. It is still too early to evaluate this new system; it was initiated too late to be in full operation for the 1967 harvest, and a below-normal 1968 crop again prevented it from taking full effect.

The new farm-support measures represent an attempt to

distinguish between farm supports and income support. This is being done by guaranteeing a low minimum price for certain commodities while at the same time granting income subsidies to farmers whose earnings are limited by the small size of their holdings. This system applies to the two main agricultural products—wheat and tobacco—and to raisins.

Livestock development focuses on introducing new concepts of meat and dairy production in an effort to reduce meat imports, which total more than \$70 million annually. Recently, the Ministry of Coordination approved allocation of some \$3 million for livestock improvement projects. These projects have been developed by the Ministry of Agriculture with American assistance. The government is also considering a meat and livestock development program in Thessaly Prefecture and has signed an agreement with a private investor for establishment of integrated meat production, slaughter, and packing facilities in the western part of this Prefecture.

The need to improve the quality of milk produced is receiving serious attention. Price differentials are being studied and will probably be applied soon. One recent report recommends establishment of three grades to control quality from the producer to the consumer.

Plans for regional development are directed primarily at Thessaly, one of the most important agricultural areas, which has been called the "breadbasket" of Greece. A report of a recent survey contracted for by the government calls for large-scale infrastructure projects, including land reclamation, irrigation, electrification, road construction, and the growing of higher income crops. Completion of this entire program would cost about \$500 million.

Processing and marketing are receiving attention primarily by encouraging private enterprise to invest in agricultural industries, including slaughterhouses, meat processing and packing plants, and fruit and vegetable canneries.

—Based on dispatch from JOHN D. MOTZ
U.S. Agricultural Attaché, Athens

Sesame Still Serving Man

(Continued from page 11)

Mexico took over the No. 2 spot last year with 24,000 tons, displacing Nigeria from its customary place; this is attributed to the latter's civil disorders and internal transportation difficulties. Ethiopia was third last year with 22,000 tons.

On the import side, Japan ranks first, buying 43,000 short tons in 1967. Italy has been second for the last several years, and imported 39,300 tons last year. The third largest buyer, the United States, has purchased between 10,000 and 18,000 tons annually during this decade, primarily from Latin America and Ethiopia.

Forecasts for 1968 show a 3-percent rise in sesame seed production as output gains in Nigeria, the Sudan, and the major Latin American producers. World exports of the seed and oil are expected to decline slightly, primarily because of reduced shipments from Mexico.

Looking into the long-range future, sesame production and trade will probably hold to the relatively steady path they have traveled in the current decade. Even though sesame is among the minor oilseed crops, its versatility and flavor should give it a future as long as its past.—M.A.N.

"Good Foods From USA at Schade" In First Frankfurt Area Promotion

The first in-store promotion of U.S. foods in West Germany's important Frankfurt area—the country's financial center—was presented last month by Schade & Füllgrabe, about 50 of whose 140 stores are in greater Frankfurt. This venerable 90-year-old grocery chain has a number of young, fresh ideas. Its co-owner Peter Sauer has spent much time in the United States working with Safeway Stores to study U.S. food merchandising methods. That his studies have paid off for his firm is evident from its \$75-million annual turnover.

Schade's initial purchase of \$260,000 worth of U.S. foods for the promotion included canned fruit cocktail, pineapple, peaches, asparagus, wax beans, chicken, carrot and pineapple juices, prunes, raisins, long grain rice, lentils, shrimps, frozen poultry, and variety meats. New items promoted were fresh chilled orange juice, honey in jars, canned sweet corn, maraschino cherries, prune juice, baked beans, mixed nuts and raisins, and assorted pickles in jars. Featured in addition, but not as special purchases, were Golden Toast (50 percent U.S. wheat) and soybean oil. All these items were displayed under the slogan "Gutes aus USA bei Schade," which dominated posters and price cards in every store.

Outstanding in Schade's setup is its modern food distribution center, with an office building and central warehouse occupying 322,800 square feet out of 646,000. Located only 1½ miles from the nearest expressway exit, the warehouse took 2 years of planning and U.S. visits plus another 2½ years to build. Automatic data processing controls the entire warehouse operation—the 65,000 square feet of refrigerated space, the 50 trucks that can park under cover at one time, and the 400 to 500 metric tons of products handled daily, half of which is fresh produce shipped out at night by refrigerated trucks over 43 routes.

Schade prepackages the fresh fruits and vegetables it sells, bottles wine and spirits under its own label, roasts and packages its own coffee brand, produces its own retail packages of meat products, and designs and prints much of its display and promotional material.

The press release Schade distributed for the November 11-23 "U.S. week" paid warm tribute to the ideas that German retailers have learned from "Professor Safeway" and similar U.S. teachers. Among these ideas, Schade lists self-service, which it credits with helping the rising cost of wages from being passed on to German consumers. Another



Schade's new central warehouse is as roomy vertically as it is horizontally. Fork lift makes its air space usable.

is "everything under one roof, even fresh meats"—a thought still novel in many of Europe's food-shopping districts. Shopping carts; deep-freezing, which brings the customer high-quality out-of-season foods at reasonable prices; new and convenient packaging ideas; and above all, the concept of mass markets, to stimulate the mass production of foods high in quality and economical in price—all these are named as part of the German retailers' debt to those of America.

Left, a Schade in-store display features U.S. canned goods. Prominent are the price signs for California peaches and cut asparagus. Below, filling sausages by machine. The production and packaging of various types of sausages occupies some 48,500 square feet of space in Schade's central warehouse facilities.



FAS, U.S. Peanut Industry Survey Markets in Europe

A five country, five-man market study in Europe this fall has convinced U.S. peanut producers and processors that the U.S. peanut is beginning to come into its own on the world export scene. A joint government-industry team that visited Britain, the Netherlands, Switzerland, Germany, and Sweden October 1-22 reports excellent prospects for developing greater utilization and bigger dollar markets for U.S. peanuts in Europe.

Members of the team were Thomas D. Odom, deputy director, Oils and Peanut Policy Staff, Agricultural Stabilization and Conservation Service (USDA); Donald Frederick Denman, director of the board, Alabama Peanut Producers Association (Southeast U.S. producers); William Flanagan, Oklahoma Peanut Commission (Southwest U.S. producers); Thomas Chandler, Jr., Stevens Industries, Dawson, Ga. (peanut processing and sales); Ronald Collins, National Peanut Council (industry-wide representative).

What the team hoped to do

One objective of the mission was to evaluate the vigorous market development effort already going on in Britain under the joint sponsorship of USDA's FAS and the National Peanut Council with the assistance of the British Peanut Council. Another was to study U.S. market potential for peanuts and peanut products in the countries visited. The team planned to compile and issue to the industry a report on market possibilities, on consumer reaction to U.S. peanuts and their products, and on suggested

marketing approaches. It also planned to set up contacts with groups and individuals overseas who can be helpful in export expansion, and to encourage local industry participation in cooperative programming to develop existing market prospects. Highlights of the report follows.

British peanut promotion booming

The team arrived in Britain in time to observe the 10 days designated as British Peanut Week, culmination of a year-long British promotion program geared to make consumers peanut-conscious. The success of that program, the trade feels, is directly reflected in Britain's consumption and imports of peanuts; and the special push of British Peanut Week was to increase the U.S. share of this market.

It was clear to the team that Britain's market potential for peanuts has now begun a new era of merchandising. The British industry apparently recognizes this fact and is gearing up to meet the changing attitudes and tastes of the British consumer, placing a new emphasis on quality and on more dynamic selling methods. British eating habits, the team felt, are rapidly changing as consumers learn more about new food items and suppliers are better able to place these items on the market.

Sales of edible peanuts over the past year have been nothing short of impressive; several firms quoted figures showing increases as high as 20 percent. One large firm stated that because of the excellent response to edible peanuts, this product has been added to its "bonus" listing—

its top turnover items.

The team pointed out that to satisfy this growing and changing market will require top-quality peanuts supplied with a minimum of shipping delay. Many British manufacturers and suppliers of peanuts and products are reported planning substantial promotion efforts for their brands during the coming year—a major change from their previous rather conservative approach.

Prospects good in Germany, Sweden

Western Germany has tremendous sales potential for U.S. peanuts and products, the team reported. Shipments in excellent volume, plus an efficient and progressive industry, offer fine possibilities for effective promotion. Spanish-type peanuts are much in demand; and the outlook for industry participation in broadening consumer response to all other peanut items is promising.

The strong West German economy favors good participation by industry. The confectionery industry is making good use of edible peanuts, and German manufacturers are selling them in appealing packages elsewhere in Europe too.

Sweden too offers the U.S. peanut a happy prospect. The lively market there for snack foods has a natural spot for edible peanuts; but ready acceptance of new products by Swedish consumers will help establish peanut candy and peanut butter also, and perhaps even more sophisticated items in the snack line. Cooperative promotion, coupled with new ideas, could make Sweden a top market.



Far left, the window of the U.S. Trade Center in London goes all out for peanuts during British Peanut Week; left, peanut products on display in a store attract even the most dignified of customers. Coverage of the 10-day promotion in the British media well repaid the active efforts of the British Peanut Council to get good displays by industry.

CROPS AND MARKETS SHORTS

Weekly Report on Rotterdam Grain Prices

Between November 21 and November 26, 1968, there was very little change in offer prices of wheat in Rotterdam. U.S. Soft Red Winter increased by 1 cent and USSR 121 decreased one cent. All others remained unchanged.

U.S. corn prices dropped 3 cents. Argentine and South African white were unchanged.

A listing of the prices follows.

Item	Nov. 26	Nov. 21	A year ago
	<i>Dol.</i>	<i>Dol.</i>	<i>Dol.</i>
	<i>per bu.</i>	<i>per bu.</i>	<i>per bu.</i>
Wheat:			
Canadian No. 2 Manitoba	2.02	2.02	2.11
USSR 121	1.97	1.96	(1)
U.S. No. 2 Dark Northern			
Spring, 14 percent	1.97	1.97	2.01
U.S. No. 2 Hard Winter,			
14 percent	1.95	1.95	1.93
Argentine	1.80	1.80	1.92
U.S. No. 2 Soft Red Winter	1.77	1.76	1.76
Corn:			
U.S. No. 3 Yellow	1.38	1.41	1.40
Argentine Plate	1.47	1.47	1.82
South African White	1.63	1.63	1.44

¹ Not quoted.

All quoted c.i.f. Rotterdam for 30- to 60-day delivery.

Yugoslavia Producing U.S.-Type Cigarettes

The outlook for U.S. flue-cured and burley tobacco exports to Yugoslavia has improved with the recent opening of a cigarette manufacturing plant in Nis. The plant, operating on a contract basis with a U.S. firm, manufactures an American brand using a high proportion of flue-cured and burley tobacco.

Public reception reportedly has been excellent and, while production is primarily aimed at domestic consumption, ultimately output will be made available for export to Eastern European countries. (No exports will be permitted to the West.)

At a minimum, the Nis plant will require approximately one million pounds of flue-cured and burley leaf per year. Yugoslavia is a major producer of oriental tobacco; production of flue-cured is still small, and burley has not progressed past the experimental stage.

Activity in Norway's Cotton Industry Lower

Activity in Norway's cotton industry in 1967-68 (August-July) was down from a year earlier, and it now appears that it will decline further in the current season. Consumption in 1967-68 is placed at 19,000 bales (480 lb. net), compared with 21,000 in 1966-67 and not under 20,000 for the past 16 years. Competition from imported yarns and increased pressure from manmade fibers are credited with this loss. Slow domestic yarn offtake in 1967-68 resulted in a reduction of spinning operations by two spinners. Also, it is reported that

in the near future a polylosic type (rayon) fiber will be produced in Norway.

Cotton imports in 1967-68 totaled 17,000 bales, a reduction from the 22,000 bales of the previous year. The United States supplies by far the largest share of Norway's raw cotton imports. In 1967-68, the United States supplied 11,000 bales, nearly two-thirds of Norway's total cotton imports, compared with 14,000 the previous season. Brazil, Guatemala, and Mexico also supply cotton to Norway.

The Norwegian textile industry has been directing attention to textile research in technology and marketing in recent years. A cooperative agreement has been made between research organizations of the Norwegian and Swedish textile industries to coordinate textile research between the two countries.

Argentine Sunflower Plantings Up 5 Percent

Area planted to sunflowerseed in Argentina for the 1968-69 crop is estimated officially at 3,088,750 acres, 5 percent above the 2,951,115 planted last year and 8 percent above the 5-year, 1963-64 to 1967-68, average. Moreover, this estimate is 9 percent above an earlier estimate of the trade (*Foreign Agriculture*, November 11, 1968).

Officially reported production from the reduced acreage of 1967-68 is 940,000 metric tons.

Canada's Maple Sugar Production Rises

Canada's 1968 production of maple products (expressed as sirup) is 2.7 million gallons, 8 percent above the 1967 crop of 2.5 million. The bulk of the maple crop was produced in Quebec Province, where sirup production totaled 2,371,000 gallons this year, or 9 percent above the 1967 production. Production of sirup was higher in all Provinces this year; however, production of farm-made sugar was lower in Nova Scotia, New Brunswick, and Ontario.

Exports of maple sugar during the January-July 1968 period were 3.8 million pounds, up 33 percent from the 2.8 million pounds shipped during the same period of 1967. Maple sirup exports during the same period totaled 7.5 million pounds, down almost 10 percent from the preceding year. Almost all of the maple products exported are shipped to the United States.

Philippine Canned Pineapple Output, Trade

The 1968 production of canned pineapple in the Philippines is estimated at 2.9 million cases, basis 24/2½'s, up 5 percent from the 2.8 million cases produced a year earlier and 27 percent above the 1966 output.

Approximately 85 percent of the Philippines annual production is exported. In 1967 exports, reflecting the increased production, rose by over 400,000 cases to a 14-year high of nearly 2.4 million cases. The United States was the leading market for these exports, receiving 37 percent in 1967, fol-

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lowed by West Germany (18 percent), the United Kingdom (16 percent), and the Netherlands (11 percent). Shipments to all of these markets were well above the 1966 volume. In addition, export gains were registered in 1967 in two other prominent markets, namely, Japan and Sweden. Here the increases over a year earlier were 35 percent and 14 percent, respectively.

Export shipments during the first 6 months of 1968 of 1.1 million cases were 13 percent below those of the corresponding period a year earlier. It is expected, however, that the pace of exports will pick up during the last half of 1968 and that total shipments will surpass the 1967 level.

Philippine exports of single-strength pineapple juice increased even more sharply than canned pineapple exports in 1967, rising 57 percent to nearly 4 million gallons. Eighty percent moved to the United States. In the first half of 1968, juice exports were up 61 percent.

Exports of pineapple concentrates, however, which also are shipped primarily to the United States, were more than halved in 1967, dropping to 742,000 gallons. This trend strengthened in January-June 1968 with shipments totaling only 6 percent of the January-June export.

PHILIPPINE EXPORTS OF PINEAPPLE PRODUCTS

Year	Canned pineapple	Pineapple juice	Pineapple concentrates
	1,000 cases, 24/2½'s	1,000 gallons ¹	1,000 gallons ²
1963	1,628	3,059	1,073
1964	1,648	2,950	947
1965	2,008	4,105	1,602
1966	1,972	2,525	1,598
1967	2,377	3,957	742
1968 ³	1,131	2,634	18

¹ Converted from pounds at a ratio of 8.8 lb. to a gallon.

² Converted from pounds at a ratio of 10.3 lb. to a gallon. ³ January-June.

How the States Stand in U.S. Agricultural Exports

It's common knowledge that the United States has had an impressive agricultural export record in recent years. But not many people know where these farm products are coming from or which States are the most important contributors to our exports. Answers to these questions appear in an article in *Foreign Agricultural Trade of the United States*, November 1968, published by the Economic Research Service.

According to the article,* Illinois is our largest single exporter of agricultural products, accounting for \$585.3 million of last fiscal year's \$6.3-billion total. This State is the No. 1 exporter of feedgrains and of soybeans, soybean oil, and protein meal, as well as an important shipper of wheat, lard, tallow, and hides and skins.

Our largest continental State, Texas, missed the first spot for agricultural exports—but not by much. It was close behind Illinois last year with a tally of \$551.2 million and huge sales of cotton (Texas boasts over a third of our cotton shipments), feedgrains, wheat, rice, and protein meal.

In third place was another large State, California, which gained its \$413.3 million total with fruit, vegetables, cotton, and rice.

On down the list, in fourth place, is Iowa, whose much talked about corn gave the State a tie with Texas for second place in feedgrain exports. The State is also known abroad for its soybeans, soybean meal, tallow and lard, meats, and hides and skins, which along with corn and a few other products earned \$392.3 million last year.

Tobacco has catapulted North Carolina to fifth place in the list; overseas sales of this product alone brought in \$265.5 million for North Carolina out of its export total of \$366.2 million; in turn, the State ends up with 54 percent of U.S. export earnings from tobacco.

A single commodity also weighs heavily in the sixth ranked State. The commodity is wheat and the State is Kansas, which last year received 60 percent of its export earnings from wheat. The rest of the \$296-million total was earned from feedgrains, soybeans, meats, hides and skins, lard and tallow.

Arkansas is in seventh place with an export total of \$254.8 million including rice, soybeans, and cotton. Next comes Indiana, with overseas shipments of \$251.5 million, followed by Nebraska with \$229.5 million and Minnesota with \$226.3 million.

These 10 States, besides accounting for a large share of the current U.S. agricultural trade, have played an important part in our export expansion. Between 1953-54—the year preceding the inauguration of P.L. 480 exports—and 1967-68, U.S. farm-product exports more than doubled, and the top 10 States accounted for 60 percent of this gain. Greatest commodity increases have occurred in oilseeds and products, feedgrains, wheat, and rice.

* Copies of the publication may be obtained from Division of Administrative Services, Office of Management Services, USDA, Washington, D.C. 20250.